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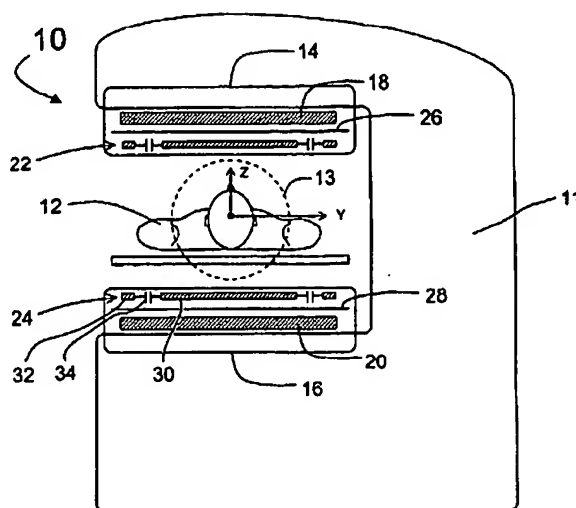
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(54) Title: **PLANAR RF RESONATOR FOR OPEN MRI SYSTEMS**



(57) Abstract: An MRI apparatus that includes an open magnet system with pole pieces (14, 16) for generating a steady  $B_0$  magnetic field in an examination zone (13). Gradient coil systems (18, 20) are disposed above and below the examination zone (13) and adjacent the pole pieces. First and second resonators (22, 24) are disposed between the gradient coil systems (18, 20) and the examination zone (13). RF screens (26, 28) are disposed between the gradient coil systems (18, 20) and the planar resonators (22, 24). The planar resonators each include a central conductor (30), such as a circular plate and an annular ring (32) surrounding and co-planar with the central conductor. Radial rungs (33) connect and are co-planar with the central conductor and annular ring. Capacitors (34), preferably numbering in the thousands, interrupt the rungs.

**Declaration under Rule 4.17:**

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